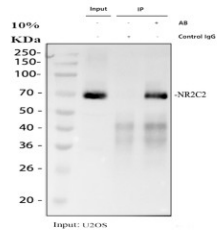
NR2C2 Antibody / Testicular Receptor 4 Antibody (RQ8296)

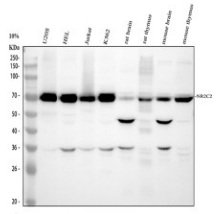
Catalog No.	Formulation	Size
RQ8296	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

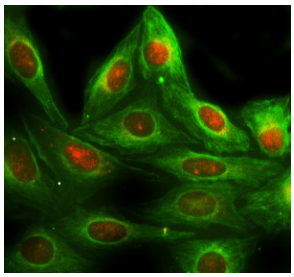
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P49116
Localization	Nuclear
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 2-5ug/ml Immunofluorescence : 5ug/ml Immunoprecipitation : 2ug per 500ug of lysate Direct ELISA : 0.1-0.5ug/ml
Limitations	This NR2C2 Antibody / Testicular Receptor 4 Antibody is available for research use only.



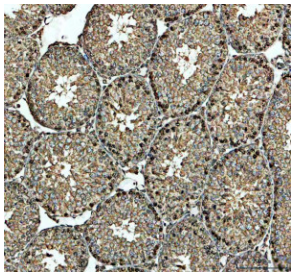
NR2C2 Antibody by IP in human U2OS cells. Immunoprecipitation of NR2C2 from human U2OS whole-cell lysate using NR2C2 Antibody. Lane 1 contains 30 ug input lysate, lane 2 represents the rabbit IgG negative control, and lane 3 contains protein immunoprecipitated using 2 ug antibody and 500 ug lysate. Subsequent western blot analysis detects a prominent band at approximately 68 kDa in the input and antibody IP lanes, with no corresponding band in the IgG control. The calculated molecular weight is 65.4 kDa. This Testicular Receptor 4 Antibody demonstrates enrichment of NR2C2 under the tested conditions.



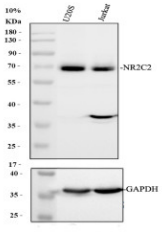
NR2C2 Antibody by WB in human, rat, and mouse samples. Western blot analysis using NR2C2 Antibody at 0.5 ug/ml. Lanes 1-4: human U2OS, HEL, Jurkat, and K562 cell lysates; lanes 5-6: rat brain and thymus; lanes 7-8: mouse brain and thymus. Each lane contained 30 ug protein separated by 10% SDS-PAGE under reducing conditions. A prominent band is detected at approximately 68 kDa, consistent with the predicted 65.4 kDa NR2C2 protein. Additional lower-molecular-weight bands are visible in several lanes, particularly the brain samples. This Testicular Receptor 4 Antibody recognizes a nuclear receptor involved in transcriptional regulation and metabolic signaling.



NR2C2 Antibody by IF in human U2OS cells. Immunofluorescence staining of human U2OS cells using NR2C2 Antibody at 5 ug/ml. NR2C2 immunoreactivity is visualized in red using a Cy3-conjugated secondary antibody, while alpha-tubulin is labeled green using a Fluoro488-conjugated secondary antibody. The red signal is concentrated predominantly within the nuclei, consistent with the expected localization of this transcriptional regulator. Green alpha-tubulin staining outlines the cytoplasmic microtubule network. Primary antibodies were incubated overnight at 4oC following enzymatic antigen retrieval. This Testicular Receptor 4 Antibody supports visualization of nuclear NR2C2 expression.



NR2C2 Antibody by IHC in mouse testis. Immunohistochemistry of FFPE mouse testis tissue using NR2C2 Antibody at 2 ug/ml. Brown DAB immunoreactivity is observed throughout the seminiferous tubules, with staining involving multiple cell populations. The signal appears predominantly cytoplasmic, with variable nuclear staining, rather than exclusively nuclear localization. Tissue sections underwent heat-induced antigen retrieval using EDTA buffer, pH 8.0, followed by overnight primary antibody incubation at 4oC. Hematoxylin counterstaining highlights the nuclei. This Testicular Receptor 4 Antibody detects immunoreactivity in a tissue associated with NR2C2-dependent reproductive regulation.



NR2C2 Antibody by WB in U2OS and Jurkat cells. Western blot analysis of human U2OS and Jurkat whole-cell lysates using NR2C2 Antibody at 0.5 ug/ml. Lane 1 contains U2OS lysate and lane 2 contains Jurkat lysate, with 30 ug protein loaded per lane and separated by 10% SDS-PAGE under reducing conditions. Both samples show a prominent NR2C2 band at approximately 68 kDa, compared with the calculated molecular weight of 65.4 kDa. An additional band near 37 kDa is visible in the Jurkat lane. GAPDH is shown as a loading control. This Testicular Receptor 4 Antibody recognizes NR2C2 in two human cell lines.

Description

NR2C2 Antibody recognizes nuclear receptor subfamily 2 group C member 2 (NR2C2), also known as testicular receptor 4 (TR4), an orphan nuclear receptor that functions as a transcriptional regulator. NR2C2 belongs to the nuclear receptor superfamily, a group of proteins that control gene expression in response to developmental, metabolic, and hormonal signals. Although initially identified in reproductive tissues, TR4 is broadly expressed and participates in numerous physiological processes.

Structurally, NR2C2 contains a conserved DNA-binding domain with two zinc finger motifs, a flexible hinge region, and a C-terminal ligand-binding domain. The DNA-binding domain recognizes specific hormone response elements within regulatory regions of target genes, while other domains mediate interactions with transcriptional cofactors. Depending on cellular context, TR4 can activate or repress transcription by recruiting coactivators, corepressors, and chromatin-modifying proteins.

Testicular Receptor 4 Antibody is relevant to research investigating metabolic homeostasis and endocrine regulation.

NR2C2 influences transcriptional programs associated with glucose metabolism, lipid handling, mitochondrial function, and cellular responses to metabolic stress. Its activity intersects with pathways regulated by other nuclear receptors and metabolic transcription factors, allowing cells to coordinate energy utilization with changing physiological demands. NR2C2 also contributes to oxidative stress responses and the maintenance of cellular homeostasis.

In reproductive biology, TR4 regulates gene networks involved in testicular development, spermatogenesis, and reproductive function. Beyond the reproductive system, NR2C2 contributes to neuronal differentiation, developmental signaling, and tissue maintenance. Altered NR2C2 activity has also been investigated in cancer biology, where its effects on proliferation, differentiation, and hormone-responsive signaling can vary according to tumor type and molecular context. These diverse functions make TR4 an important subject in studies of transcriptional regulation and nuclear receptor biology.

NSJ Bioreagents provides NR2C2 Antibody for research into orphan nuclear receptors and their roles in development, metabolism, and cellular signaling. Understanding NR2C2-dependent transcription may help clarify how nuclear receptor networks integrate environmental and physiological signals to regulate gene expression. A NR2C2 Antibody can support investigations of Testicular Receptor 4 function and its contributions to metabolic regulation, reproductive biology, and transcriptional control.

Explore additional antibodies involved in nuclear receptor signaling and transcriptional regulation in our Signal Transduction Antibodies collection.

Application Notes

Optimal dilution of the NR2C2 Antibody / Testicular Receptor 4 Antibody should be determined by the researcher.

Immunogen

An E.coli-derived human recombinant protein (R7-L596) was used as the immunogen for the NR2C2 Antibody.

Storage

After reconstitution, the NR2C2 Antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

TR4 antibody, Testicular Receptor 4 antibody, Nuclear Receptor Subfamily 2 Group C Member 2 antibody, Nuclear Receptor TR4 antibody, Orphan Nuclear Receptor TR4 antibody

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